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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/708,973	04/05/2004	Brian W. Cho	68.0476	2972

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EXAMINER

SMITH, MATTHEW J

ART UNIT PAPER NUMBER

3672

DATE MAILED: 09/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/708,973	Applicant(s) CHO ET AL.	
	Examiner Matthew J. Smith	Art Unit 3672	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,6-9,15-28,32-44 and 46-55 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 43,44 and 46-48 is/are allowed.
- 6) ☒ Claim(s) 1,2,6-9,15-17,21,27,28,32,49 and 53 is/are rejected.
- 7) ☒ Claim(s) 18-20, 22-26, 33-42,50-52, 54, and 55 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>20Jun06</u> . | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 6-9, 15, 21, 27, and 28 are rejected under 35 U.S.C. 102(b) as being anticipated by Retz (4501327).

Retz discloses a method comprising: deploying a spring 54 downhole; energizing the spring (fig. 1); energizing the spring before running the spring downhole (Fig. 2); releasing the spring from an unenergized state (col. 5, lines 41-42, "flexing outwardly") to form the annular barrier (Fig. 1); twisting the spring to reduce a diameter of the spring while maintaining the spring at the same axial length (Fig. 2); twisting the spring consistent with a helical orientation of the spring (Fig. 2); the spring having an axial length; energizing the spring by pulling (Fig. 1); twisting the spring from a direction opposite from a direction defined by a spring helical orientation (Fig. 2); energizing the spring after running the spring downhole (Fig. 1); and elastomeric sleeve 66 to compress the spring.

Claims 16 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by McCullough et al. (3314479).

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McCullough et al. disclose a method comprising: forming a helical groove 14 in a tubular member 10 to form an elastic body that recovers its original shape after distortion (inherent when helically slotting a metal tube) or spring that is used to expand in the well to form an annular barrier and longitudinally varying a profile of the tubular member to form the spring.

Claim 32 is rejected under 35 U.S.C. 102(b) as being anticipated by Mouton (5335723).

Mouton discloses a string 14 run into a well and a spring 16 adapted to expand (hub part 26 is not fastened) to form a barrier and the spring profile varies along the longitudinal length.

Claims 49 and 53 are rejected under 35 U.S.C. 102(b) as being anticipated by Gore (3067819).

Gore discloses a method comprising deploying a spring 20b around a wedge E and energizing the spring; the spring 20b forming an annular barrier and a wedge 57 circumscribed by the spring 20b and adapted to exert a radial force to expand the spring

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Retz in view of Gore.

Retz discloses deploying a spring 54 downhole and energizing the spring (fig. 1) but not energizing a coil spring.

Gore presents a coil spring inflatable to seal a rubber sleeve 48.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to use a coil spring in the Retz device since the operation of the Retz device would function the same with a coil spring, which Gore presents as being well known.

Allowable Subject Matter

Claims 43, 44, and 46-48 are allowed.

Claims 18-20, 22-26, 33-42, 46, 47, 50-52, 54, and 55 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in

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independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments, see page 10, filed 7 July 2006, with respect to claims 21, 22, 25, 38, 39, 43, and 44 have been fully considered and are persuasive. The 35 U.S.C. 102 rejection of claims 21, 22, 25, 38, 39, 43, and 44 has been withdrawn.

The examiner contends Retz does "energize" the spring prior to running the tool into the well. Note figure 2 compared to figure 1. In figure 2 the spring is collapsed or energized. In figure 1, the energy is released causing radial expansion. Also, when Retz discusses elements 54 "flexing outwardly", the energy is being released.

With regard to the McCullough et al. discussion, while McCullough et al. do not use the word "spring" in the disclosure, the examiner feels the claim is still anticipated. Cutting a helical slot in a tube has the properties very much similar to a spring. Since the objective of the applicants spring is the flexibility when expanded, the McCullough et al. body 10 has the same flexibility characteristic-even though the disclosure does not use the word spring.

The rejection of claim 21 is new and considered anticipated as set forth above.

Claim 32 is now anticipated by Mouton. The examiner does not equate "annular barrier" with the concept of completely sealing the annulus. Using the definition of barrier as an obstruction, restriction, or impedance to flow, the examiner interprets the Mouton wire 17 an annular barrier, and thus anticipating claim 32.

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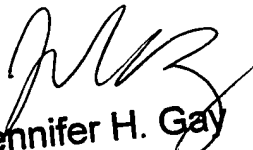
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew J. Smith whose telephone number is 571-272-7034. The examiner can normally be reached on T-F, 9-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David J. Bagnell can be reached on 571-272-6999. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

David Bagnell
Supervisory Patent Examiner
Art Unit 3672

MJS
7 September 2006


Jennifer H. Gay
Primary Examiner